

## Power Guide

AeroMate™ WSC  
(Wire Sensors and Controls)

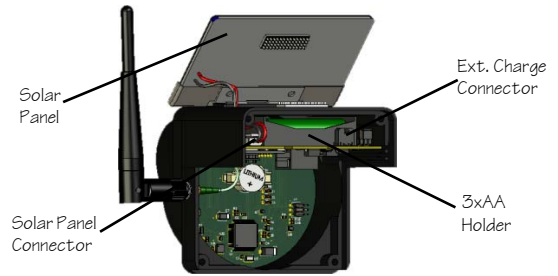


*Flexible and reliable power system*

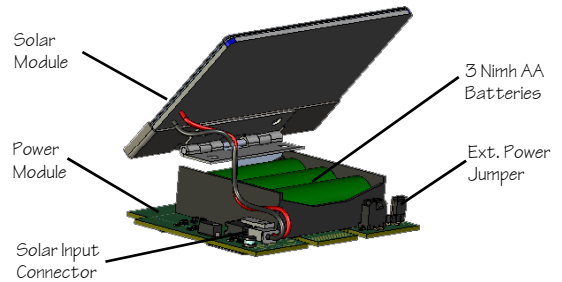
*Internal Rechargeable AA Battery Holder  
Convenient Power Jack Connector*

U.S. Patent Numbers 6,194,793 and 6,462,507  
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## Power Module Components



## Power Module Assembly



## Battery Holder Notes

The battery holder accepts (3) three rechargeable AA batteries and features springless, nickel plated terminals. The battery holder is replaceable via two mounting screws. PCB solder terminals are located to the right and under the battery holder.

The AA battery cells are 1.2V, 2500 mAh, Nimh (Nickel Metal Hydride) cells. All new AA cells should be initially charged using a commercial AA battery charger.

To replace AA batteries, first pull the battery module out just far enough to expose the Solar connector. Unplug the Solar connector and then pull the power module out of the housing. Push each battery from the positive terminal (+) toward the negative terminal (-) and pull up on the battery to remove it. Observe battery polarity when inserting new batteries.

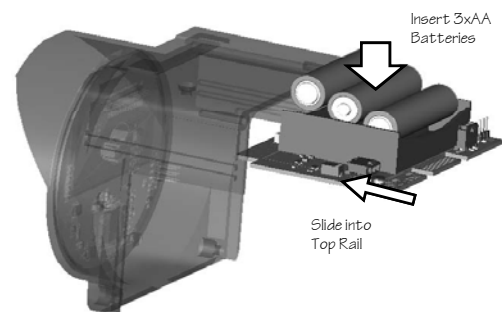
### CSA Approval

AeroMate WSC units bearing the CSA Intrinsic Safety label must use only CSA approved batteries.

Order Number	Type	Specification
4008-0122500	Nimh AA-Cell	1.2V @ 2500 mAh

Manufacturer	Mfg. Part No.
Energizer Power Products Sanyo	NH15-2500-VP HR3U2500

## Installing Power Module



To install the power module into the enclosure, first pull the Solar Connector out to the back of the enclosure and move it out of the way. Orient the power module as shown in the illustration above and gently slide the module on to the TOP RAIL of the enclosure until the Solar Connector can reach the solar socket.

Plug the Solar Connector into its socket and then continue sliding in the power module. Check to see that the front panel connector mates properly with the power module connector, then firmly seat the power module on the front panel connector.

### Power Jack Socket

The power jack socket provides a convenient method for connecting other power sources to charge the internal AA batteries or to power the unit with the internal AA batteries removed. The power jack socket is on the bottom of the rear application module.

Several accessories are available for use with the power jack including a 2 and 6 Watt external solar panels and 3 Vdc or 6 Vdc AC-to-DC converters to charge from a 115 Vac utility socket. These accessories use a mating, molded power jack plug and cable with a white stripe to show the positive (+) connection wire.

**CAUTION!**

Use only manufacturer supplied accessories with the External Power Jack when rechargeable batteries are installed.

*CSA Approval*

AeroMate units bearing the CSA Intrinsic Safety label must use only CSA approved power jack accessories. Approved power jack accessories include:

<u>Part Number</u>	<u>Manufacturer</u>	<u>Mfg. Part No.</u>	<u>Power</u>
9200-0852251	SunWize	1012W8V.28A	2 Watts
9200-0501200	SunWize	126006SC6-6	6 Watts

### ¾ Watt Two-Season Solar Panel



Spring – Summer – Fall  
March 16 – November 14

Press down on the solar panel to lock it into the horizontal position.

Winter Charging  
November 15 – March 15

Pull up on the solar panel to allow it to spring to the vertical 45° position.



### Power Options

The AeroMate's input voltage and current regulation system allow a wide variety of power options to be used. For supplemental battery charging, use only manufacturer supplied Power Jack accessories. The AeroMate's integral 0.75 Watt solar panel supplements and works with any power source connected through the external power jack socket.

The AeroMate's internal 3xAA battery pack has a nominal 3.6 Vdc voltage reading. During routine operation, battery voltages ranging from 3.4 Vdc to 4.4 Vdc are considered normal for this product.

#### Rechargeable Batteries Removed

With the internal rechargeable AA batteries removed from the battery holder, any 4.5 to 24 Vdc power source may be used for normal operation. When operating solely from an external power source, the AeroMate power draw is constant, regardless of the voltage applied to the external power jack input.

*CSA Approval*

AeroMate units bearing the CSA Intrinsic Safety label must use only CSA approved external power sources or power jack accessories otherwise intrinsic safety status may be compromised.

### Accessories

<i>Part Number</i>	<i>Accessory Description</i>
<b>2154-1242253</b>	3 x AA Battery Holder. Nickel plated w/ springless contacts. Uses #2-56 hold-down screws.
<b>4008-0122500</b>	Nimh AA Battery (2500 mAh Capacity). Uses 3 each in AA battery holder. Recommend charging before use.
<b>4015-1250300</b>	4 x AA Auto Lighter Charger. 1-hour Nimh battery charging. Plugs into auto lighter socket.
<b>4022-PD7510A</b>	115 Vac Wall Socket Charger. 6 ft. molded power jack cable. Output 3 Vdc @ 300 mA (.90 W).
<b>9203-2034100</b>	AeroMate power module assembly. Includes 3 AA, 2500 mAh batteries. Direct replacement for standard module.
<b>9200-0501200</b>	Ext. 6 Watt Solar Panel w/ stand. 5 Vdc @ 1200 mA charging. 6 ft. Power Jack cable provided.
<b>9200-0852251</b>	Ext. 2 Watt Solar Panel w/ stand. 8.5 Vdc @ 235 mA charging. 12 ft. Power Jack cable provided.